

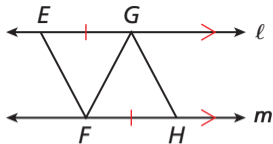
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Proving Triangles Congruent

Given: $\ell \parallel m$, $\overline{EG} \cong \overline{HF}$

Prove: $\triangle EGF \cong \triangle HFG$

Proof:



Statements	Reasons
1. $\overline{EG} \cong \overline{HF}$	1. Given
2. $\ell \parallel m$	2. Given
3. $\angle EGF \cong \angle HFG$	3. Alt. Int. \angle s Thm.
4. $\overline{FG} \cong \overline{GF}$	4. Reflex Prop. of \cong
5. $\triangle EGF \cong \triangle HFG$	5. SAS <i>Steps 1, 3, 4</i>